Sources that comprise the load at A72

October 2012 Synoptic Sampling

Dissolved (filtered) concentration used for Mn, SO4, and Zn (these constituents are transported conservatively throughout the system and the dis
Total (unfiltered) concentration used for remaining constituents (these constituents are reactive, and the total concentrations are the best measur

Loading analysis based on flow profile of 29 May 2014

Al dist	description	% load	cumulative %		As dist	description	% load	cumulative %
17805	Mineral Creek	44.0%	44.0%		6552	Prospect Gulch & Iron Bog	81.7%	81.7%
6552	Prospect Gulch & Iron Bog	22.0%	65.9%		11420	Topeka Gulch & May Day	8.6%	90.2%
5666	Dry Gulch	5.7%	71.6%		10530		5.4%	95.6%
7222	Georgia/Tiger Gulches	3.4%	75.0%		16024	Cement Cr Gage to Mouth	2.4%	98.0%
12392		3.2%	78.2%		9842	Porc Gulch & Adit	1.2%	99.3%
13443		3.1%	81.3%		14716	Soda Gulch	0.7%	100.0%
14716	Soda Gulch	2.9%	84.2%					
3376	N. Fork Cement Creek / Gold King	2.8%	87.0%					
4056	S. Fork Cement Creek	2.3%	89.4%					
11420	Topeka Gulch & May Day	2.3%	91.6%					
10087	Ohio Gulch	2.1%	93.7%					
3009	R&B	2.0%	95.7%					
16024	Cement Cr Gage to Mouth	1.4%	97.0%					
3564	American Tunnel	1.1%	98.2%					
3977	Gladstone seep	0.8%	98.9%					
1380	Mogul	0.3%	99.3%					
8546		0.2%	99.5%					
371	Queen Anne	0.2%	99.7%					
1407	Fen Drainage near Mogul	0.2%	99.8%					
2744		0.1%	99.9%					
1827		0.0%	100.0%					
557		0.0%	100.0%					
336		0.0%	100.0%					
0		0.0%	100.0%					

load table

Cd dist	description	% load	cumulative %
16720	Upper Animas	24.3%	24.3%
17805	Mineral Creek	15.5%	39.9%
3009	R&B	11.4%	51.3%
10087	Ohio Gulch	6.8%	58.0%
3376	N. Fork Cement Creek / Gold King	6.5%	64.6%
18637	Upstream of A72	5.3%	69.8%
6552	Prospect Gulch & Iron Bog	4.7%	74.5%
4056	S. Fork Cement Creek	3.3%	77.8%
3564	American Tunnel	3.0%	80.8%
3977	Gladstone seep	2.9%	83.7%
14716	Soda Gulch	2.8%	86.5%
11420	Topeka Gulch & May Day	2.7%	89.3%
1380	Mogul	2.3%	91.5%
13443		1.9%	93.5%
371	Queen Anne	1.7%	95.2%
8546		1.2%	96.3%
1407	Fen Drainage near Mogul	1.0%	97.3%
7222	Georgia/Tiger Gulches	0.7%	98.0%
2744		0.6%	98.6%
5666	Dry Gulch	0.5%	99.1%
1827		0.4%	99.4%
336		0.3%	99.8%
557		0.2%	100.0%
0		0.0%	100.0%

Cu dist	description	% load	cumulative %
3376	N. Fork Cement Creek / Gold King	40.7%	40.7%
16720	Upper Animas	11.6%	52.3%
17805	Mineral Creek	9.2%	61.5%
3977	Gladstone seep	5.7%	67.2%
4056	S. Fork Cement Creek	5.5%	72.7%
6552	Prospect Gulch & Iron Bog	5.1%	77.8%
7222	Georgia/Tiger Gulches	4.7%	82.4%
10087	Ohio Gulch	4.4%	86.8%
1380	Mogul	3.1%	89.9%
11420	Topeka Gulch & May Day	2.8%	92.8%
18637	Upstream of A72	1.9%	94.6%
371	Queen Anne	1.3%	95.9%
3564	American Tunnel	1.1%	96.9%
1407	Fen Drainage near Mogul	1.0%	98.0%
1827		0.4%	98.4%
336		0.4%	98.8%
1192		0.3%	99.1%
2744		0.3%	99.4%
3009	R&B	0.2%	99.6%
14716	Soda Gulch	0.2%	99.8%
0		0.1%	99.9%
557		0.1%	100.0%

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load table

Fe dist	description	% load	cumulative %
6552	Prospect Gulch & Iron Bog	35.5%	35.5%
17805	Mineral Creek	28.8%	64.2%
3009	R&B	14.2%	78.5%
12392		4.9%	83.4%
5666	Dry Gulch	4.3%	87.7%
13443		3.2%	90.9%
3977	Gladstone seep	3.1%	94.0%
3564	American Tunnel	2.2%	96.3%
4056	S. Fork Cement Creek	1.7%	98.0%
3376	N. Fork Cement Creek / Gold King	1.2%	99.2%
14716	Soda Gulch	0.7%	99.9%
16720	Upper Animas	0.1%	100.0%

Mn dist	description	% load	cumulative %
16720	Upper Animas	26.2%	26.2%
3009	R&B	19.2%	45.4%
3564	American Tunnel	10.4%	55.8%
17805	Mineral Creek	8.2%	64.0%
4056	S. Fork Cement Creek	5.3%	69.3%
6552	Prospect Gulch & Iron Bog	5.2%	74.5%
3376	N. Fork Cement Creek / Gold King	3.6%	78.1%
14716	Soda Gulch	3.5%	81.6%
16024	Cement Cr Gage to Mouth	3.1%	84.7%
10087	Ohio Gulch	2.7%	87.4%
7222	Georgia/Tiger Gulches	2.7%	90.1%
11420	Topeka Gulch & May Day	2.1%	92.2%
3977	Gladstone seep	2.1%	94.3%
5666	Dry Gulch	1.4%	95.6%
1380	Mogul	1.3%	96.9%
9842		0.9%	97.7%
8546		0.8%	98.6%
1407	Fen Drainage near Mogul	0.5%	99.0%
12392		0.3%	99.4%
13443		0.2%	99.6%
371	Queen Anne	0.2%	99.8%
1827		0.1%	99.9%
2744		0.1%	100.0%
557		0.0%	100.0%

Ni dist	description	% load	cumulative %		Pb dist	description	% load	cumulative %
6552	Prospect Gulch & Iron Bog	17.5%	17.5%		5666	Dry Gulch	16.3%	16.3%
17805	Mineral Creek	15.2%	32.8%		17805	Mineral Creek	16.1%	32.4%
18637	Upstream of A72	13.4%	46.2%		16720	Upper Animas	15.8%	48.2%
16024	Cement Cr Gage to Mouth	12.5%	58.7%		3009	R&B	13.4%	61.6%
13443		9.1%	67.8%		14716	Soda Gulch	9.5%	71.2%
10087	Ohio Gulch	6.0%	73.8%		18637	Upstream of A72	6.0%	77.2%
3009	R&B	5.7%	79.5%		4056	S. Fork Cement Creek	5.5%	82.7%
3564	American Tunnel	3.4%	82.9%		7222	Georgia/Tiger Gulches	3.7%	86.4%
12392		3.1%	86.0%		3977	Gladstone seep	3.3%	89.8%
9842	Porc Gulch & Adit	3.0%	89.1%		10087	Ohio Gulch	3.2%	92.9%
7222	Georgia/Tiger Gulches	3.0%	92.0%		3376	N. Fork Cement Creek / Gold King	2.6%	95.5%
3977	Gladstone seep	2.5%	94.5%		12392		1.8%	97.3%
5666	Dry Gulch	2.4%	96.9%		1380	Mogul	1.2%	98.5%
4056	S. Fork Cement Creek	1.3%	98.2%		16024	Cement Cr Gage to Mouth	0.5%	99.0%
3376	N. Fork Cement Creek / Gold King	0.6%	98.8%		1407	Fen Drainage near Mogul	0.3%	99.4%
371	Queen Anne	0.4%	99.2%		557		0.3%	99.6%
2744		0.3%	99.4%		371	Queen Anne	0.1%	99.7%
1380	Mogul	0.2%	99.7%		1192		0.1%	99.8%
1407	Fen Drainage near Mogul	0.1%	99.8%		11420	Topeka Gulch & May Day	0.1%	99.9%
1827		0.1%	99.9%		1827		0.1%	100.0%
336		0.1%	100.0%		0		0.0%	100.0%
557		0.0%	100.0%		336		0.0%	100.0%
0		0.0%	100.0%					

load table

SO4 dist	description	% load	cumulative %		Zn dist	description	% load	cumulative %
17805	Mineral Creek	35.1%	35.1%		3009	R&B	18.8%	18.8%
16720	Upper Animas	14.7%	49.8%		16720	Upper Animas	16.2%	35.0%
6552	Prospect Gulch & Iron Bog	9.5%	59.3%		3564	American Tunnel	10.2%	45.2%
4056	S. Fork Cement Creek	5.8%	65.1%		6552	Prospect Gulch & Iron Bog	7.6%	52.8%
3009	R&B	5.4%	70.5%		17805	Mineral Creek	6.1%	58.8%
7222	Georgia/Tiger Gulches	3.6%	74.1%		3376	N. Fork Cement Creek / Gold King	5.9%	64.7%
11420	Topeka Gulch & May Day	3.2%	77.4%		4056	S. Fork Cement Creek	4.5%	69.2%
3564	American Tunnel	2.6%	79.9%		14716	Soda Gulch	4.4%	73.6%
14716	Soda Gulch	2.4%	82.3%		7222	Georgia/Tiger Gulches	3.8%	77.5%
10530		2.3%	84.7%		16024	Cement Cr Gage to Mouth	3.4%	80.9%
5666	Dry Gulch	2.1%	86.8%		1380	Mogul	3.4%	84.3%
8546		2.1%	88.9%		10087	Ohio Gulch	2.8%	87.1%
13443		1.8%	90.7%		11420	Topeka Gulch & May Day	2.4%	89.5%
12392		1.8%	92.5%		3977	Gladstone seep	2.3%	91.8%
10087	Ohio Gulch	1.7%	94.1%		5666	Dry Gulch	1.5%	93.3%
3376	N. Fork Cement Creek / Gold King	1.6%	95.8%		18637	Upstream of A72	1.5%	94.7%
18637	Upstream of A72	1.4%	97.2%		1407	Fen Drainage near Mogul	1.4%	96.1%
9842		0.8%	98.0%		17360	Idaho Gulch	1.3%	97.4%
3977	Gladstone seep	0.4%	98.4%		371	Queen Anne	1.1%	98.5%
16024	Cement Cr Gage to Mouth	0.4%	98.8%		2744		0.4%	98.9%
1380	Mogul	0.3%	99.0%		9842	Porc Gulch & Adit	0.4%	99.3%
1827		0.3%	99.3%		1827		0.3%	99.6%
371	Queen Anne	0.2%	99.5%		336		0.3%	99.8%
2744		0.2%	99.8%		557		0.1%	100.0%
1407	Fen Drainage near Mogul	0.1%	99.9%		0		0.0%	100.0%
0		0.0%	99.9%					
336		0.0%	100.0%					
557		0.0%	100.0%					

and the dissolved concentrations are the best measure of constituent loading)
best measure of constituent loading)